

**Type: Poster Presentation**

Final Abstract Number: 47.033

Session: Tuberculosis &amp; Other Mycobacterial Infections

Date: Friday, June 15, 2012

Time: 12:45–14:15

Room: Poster &amp; Exhibition Area

**An outbreak of wound infection following laparoscopic surgery among hospitals in a city of eastern India**B. Saha<sup>1,\*</sup>, S. Mallik<sup>1</sup>, M. Ghosh<sup>1</sup>, A. Naskar<sup>1</sup>, S. Kumar<sup>1</sup>, D. Pal<sup>1</sup>, N. Bhattacharya<sup>2</sup>, S. De Bakshi<sup>3</sup><sup>1</sup> School of Tropical Medicine, Kolkata, West Bengal, India<sup>2</sup> NRS Medical College, Kolkata, West Bengal, India<sup>3</sup> CMRI, Kolkata, West Bengal, India

**Background:** Laparoscopic operations are becoming very popular. During last one year (August 2010 to September, 2011), we have come across many patients of port /wound infection following laparoscopic surgery.

**Methods:** All patients underwent complete hemogram, blood sugar estimation, liver function test, serum urea, creatinine, HIV testing and chest X ray to rule out any co-morbidity. Discharge from wound was sent for Gram stain, culture & sensitivity, AFB staining, fungal culture. DNA PCR and BACTEC culture for *Mycobacterium* was sent in 7 cases with significant discharge. Patients were followed up in the OPD. USG of local area was done in some patients with persistent symptoms.

**Results:** We came across 44 adult cases (28 female, 16 male) of port /wound infection- 43 following Laparoscopic cholecystectomy and one after Laparoscopic ovarian cystectomy. They were from different institutions coming in groups. Each group of patients was operated on

the same day in the same hospital. All received several courses of antibiotics including Co-amoxycylav, cephalosporins, and fluoroquinolones following surgery. All of them presented with single/multiple swellings/ sinuses on or around the port (wound) starting 3–6 weeks of surgery with intermittent purulent/serosanguinous discharge. None had systemic symptoms. All were nondiabetic and immunocompetent. In 4 cases, the culture showed growth of *Staph. aureus* and was given appropriate antibiotic without significant

improvement. AFB was found in the stained smear of four patients. In 3 patients DNA

PCR for *Mycobacterium* showed presence of non-tuberculous mycobacteria. BACTEC mycobacterial culture grew *M. abscessus* in one. All patients were treated with a common

regime of Clarithromycin+Ofloxacin and Ethambutol for a period of 6 months. The regimen was well tolerated in most with myalgia/arthritis in 3 (possibly due to Ofloxacin), haematemesis in one (possibly due to Clarithromycin). One patient showed axillary lymphadenopathy at fourth month of therapy, FNAC from same showed non-specific lymphadenitis, her local wound showed considerable persistent induration- she was treated for 1 year and responded.

**Conclusion:** The present outbreak of post laparoscopy wound infection from different institutions was due to atypical mycobacteria which responded to Clarithromycin, Ethambutol and Ofloxacin for 6 months. Institutions were communicated regarding standard procedure of disinfection as per available protocol to prevent recurrence.

<http://dx.doi.org/10.1016/j.ijid.2012.05.967>

**Type: Poster Presentation**

Final Abstract Number: 47.034

Session: Tuberculosis &amp; Other Mycobacterial Infections

Date: Friday, June 15, 2012

Time: 12:45–14:15

Room: Poster &amp; Exhibition Area

**Drug susceptibility testing of *Mycobacterium tuberculosis* by two phenotypic methods**R. Saksena<sup>1,\*</sup>, C.P. Baveja<sup>2</sup>, S. Kumar<sup>3</sup>, H.S. Hira<sup>2</sup>, A. Khanna<sup>4</sup><sup>1</sup> Maulana Azad Medical College, New Delhi, Delhi, India<sup>2</sup> Maulana Azad Medical College, New Delhi, India<sup>3</sup> Maulana Azad Medical College, New Delhi, New Delhi, India<sup>4</sup> Lok Nayak Hospital, New Delhi, India

**Background:** Currently the methods used for drug susceptibility testing in cases of tuberculosis take a long time (6–8 weeks) to give the results, delaying appropriate treatment and leading to increased morbidity, mortality and spread of infection. There is a need to study new rapid, simple and low cost methods for detection and drug susceptibility testing for tuberculosis. Therefore, a colorimetric method, Malachite Green Microtube (MGMT) assay, was evaluated for drug susceptibility testing (DST) of *Mycobacterium tuberculosis*.

**Methods:** The objectives of the study were to isolate *Mycobacterium tuberculosis* from suspected cases of Multidrug resistant tuberculosis (MDR-TB); to perform drug susceptibility testing by Standard proportion method and MGMT assay and compare the results obtained by the two methods.

Sputum samples were collected from 30 patients of pulmonary tuberculosis declared as treatment failure cases. Direct microscopy was done by Ziehl-Neelsen (ZN) staining. Culture and drug susceptibility testing (DST) was performed on Lowenstein-Jensen medium and by MGMT assay.

**Results:** Of the 30 samples, 25 (83.3%) were positive on LJ medium and 22 (73.3%) on MGMT assay. The sensitivity of MGMT assay for detection of growth of *Mycobacterium tuberculosis* was 95.6% whereas the specificity was 100%. The sensitivity and specificity of MGMT assay for drug susceptibility testing was 98.5% and 61.4%. The percentage of cases which came out to be multi-drug resistant (MDR-TB) by Standard proportion method on LJ medium and MGMT assay were 56% and 68%, respectively. The sensitivity and specificity of MGMT drug susceptibility testing to determine Multidrug resistant tuberculosis (MDR-TB) came out to be 92.3% and 62.5% with a percentage agreement of 81% when compared with Standard proportion method. The mean time taken for detection of growth of *M. tuberculosis* and DST by direct MGMT assay was 10.8 days.

**Conclusion:** Thus this study showed that the MGMT assay was a sensitive and specific method for detection and drug susceptibility testing of *M. tuberculosis*. It was also a faster method thus eliminating the long turnover time seen with LJ medium.

<http://dx.doi.org/10.1016/j.ijid.2012.05.968>